

## WHAT IS CLAIMED IS:

1. A power semiconductor device comprising:
  - a resin case for covering and protecting an outer surface of the power semiconductor device, the resin case having a thin portion integrally projected outward therefrom;
  - an external connecting terminal portion of a main circuit terminal, which extends outward from the resin case, wherein the thin portion of the resin case is formed on a backside of the external connecting terminal portion; and
  - a polygonal nut for receiving a clamping bolt, the polygonal nut securely inserted in a nut insertion hole which is formed in the thin portion of the resin case, wherein the polygonal nut is engaged with an inner surface of the nut insertion hole,
- wherein the inner surface of the nut insertion hole has a round-shaped notch concave portion formed at a position confronting to a corresponding corner portion of the polygonal nut so that the corner portion of the polygonal nut is not in contact with a resin case member.
2. The power semiconductor device according to claim 1, wherein a slot grooves are radially formed at both sides near the notch concave portion in the inner surface of the nut insertion hole, so that a torque buffer portion for

absorbing a clamping torque is formed in a shape of a projection integrally projected as a part of the resin case between the notch concave portion and the slot grooves at both sides thereof.

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3. The power semiconductor device according to claim 1, wherein the round-shaped notch concave portion in the inner surface of the nut insertion hole is filled with an elastic member made of rubber.

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4. The power semiconductor device according to claim 2, wherein the round-shaped notch concave portion in the inner surface of the nut insertion hole is filled with an elastic member made of rubber.

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